

Completed Pollution Prevention Project Case Study

United States Department of Energy
Office of Environmental Management
Fact Sheet

Heavy Equipment Shop Hot Water Parts Washer Los Alamos National Laboratory

Original Problem

The heavy equipment shop used to clean mechanical parts with SafetyKleen solvent. SafetyKleen is a blend of solvents and caustics, and it caused skin irritation in some mechanics. The mechanics often spent several hours per day standing next to an open drum of SafetyKleen and scrubbing dirty parts by hand. An open drum can potentially get knocked over, creating a safety and environmental hazard.

The Project Solution

A CUDA® hot water parts washer was installed. The team at the heavy equipment shop found that it worked more effectively than any other hot water parts washer, and it cleans parts better than SafetyKleen solvent as well. The CUDA® system automatically separates oil from the water, and the water can be reused in the washer. Multiple parts can be washed at the same time, and each cycle takes about thirty minutes.



Value of Improvement

Instead of cleaning parts by hand and experiencing skin irritation, the mechanics can now spend their time more productively and get even cleaner parts than before. All of the oil removed from the parts can be recycled. No hazardous waste is generated by the cleaning process anymore, saving \$280 every month.

Lifecycle Waste Reduction	
Lifecycle Waste Reduction	110gal /month
Commencement Date	2000
Project Useful Life (Years)	10 - 15

DOE Monetary Benefits

Total Project Cost	NA
Lifecycle Savings	\$280 / month
Return on Investment	NA

Benefits At-A-Glance

- 110 gallons per month of waste SafetyKleen solvent are no longer generated, saving \$280 per month.
- The hot water parts washer decreases the mechanics' exposure to solvents.
- The oil collected by the hot water parts washer is recycled.

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Summary Data	
Priority Area:	Waste Minimization Projects
Project Type:	Source Reduction
Total Project Cost:	NA
Lifecycle Savings:	\$280 / month
Implementing Group:	JCNNM
Benefiting Group:	JCNNM
Useful Life Years:	10 - 15
Return on Investment:	NA
Lifecycle Waste Reduction:	110 gallons of hazardous waste / month
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